

~~Page 50, line 43, immediately after "CGAAGCTTCACAGGCCAGCC CAACTCC" please insert -- (SEQ. ID NO:147) --.~~

~~Page 50, line 44, immediately after "GCGGATCCAGAGCCACGTCCTA CGTC" please insert -- (SEQ. ID NO:148) --.~~

~~Page 50, line 45, immediately after "GCGGATCCGTTCAGATGCCGGC CCAC" please insert -- (SEQ. ID NO:149) --.~~

~~Page 56, line 24, immediately after "(PXXXXPXXP;PEMEPPRRP)" please insert -- (SEQ. ID NOS: 93 and 150 respectively) --.~~

*N.E.* Page 51, line 15, immediately after "PEMEPPRRP" please insert -- ( - SEQ. ID NOS: 93 and 150 respectively) --.

In the Claims:

~~Please cancel claims 5, 8, 20, 21, 30, 28 and 45. Please amend the application as follows:~~

3. (Amended) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises the sequence presented in Figure 1 (SEQ ID No. 1), or hybridizes under normal stringency conditions to the complement of the sequence presented in Figure 1 (SEQ ID Nos: 34, 36, 38, 41, 43, 45, 47, 49, 51, 55, 63, 67, 71, 75, 79, 83), provided that the nucleic acid molecule is not EST AA281296.

4. (Amended) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule encodes the amino acid sequence presented in Figure 1 (SEQ ID No. 2) or 11 (SEQ ID Nos: 35, 37, 39, 42, 44, 46, 48, 50, 52-54, 56-58, 60-62, 64-66, 68-70, 72-74, 76-78, 80-82, 84-86), or variant thereof, or hybridizes under normal stringency conditions to the complement of the sequences thereof, provided that the nucleic acid molecule is not EST AA281296.

6. (Amended) An isolated nucleic acid molecule comprising any of the sequences presented in Figure 10 (SEQ ID Nos: 18, 23, 25, 27, 29, 30, 32, 33), or hybridizes under normal stringency conditions to the complement of the sequences thereof.

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7. (Amended) An oligonucleotide comprising from 10 to 100 contiguous nucleotides from the sequence presented in Figure 1 (SEQ ID No. 1), Figure 10 (SEQ ID Nos: 18, 23, 25, 27, 29, 30, 32, 33), or the complements thereof, [or its complement].

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9. (Amended) The oligonucleotide of claim 7 [either of claims 7 or 8], wherein the oligonucleotide is labeled.

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11. (Amended) An expression vector, comprising a heterologous promoter operably linked to a nucleic acid molecule according to either of claims 1 or 6 [any of claims 1-6].

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13. (Amended) A host cell containing a vector according to claim [either claims] 11 [or 12].

A<sup>6</sup> sub C

18. (Amended) The protein of claim 16, wherein the protein comprises one of the amino acid sequences [sequence] presented in Figure 1 (SEQ ID No. 2) or 11 (SEQ ID Nos: 35, 37, 39, 42, 44, 46, 48, 50, 52-54, 56-58, 60-62, 64-66, 68-70, 72-74, 76-78, 80-82, 84-86), or variant thereof.

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27. (Amended) A nucleic acid molecule [probe] that is capable of specifically hybridizing to a nucleic acid molecule encoding a vertebrate telomerase under conditions of normal stringency[, provided that the probe does not hybridize to nucleotides 1624-2012 presented in Figure 1].

N.E.

28. (Amended) The nucleic acid molecule [probe] of claim 27, wherein the nucleic acid molecule [probe] is from 12 to 200 nucleotides long.

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29. (Amended) The nucleic acid molecule [probe] of claim 27, wherein the nucleic acid molecule [probe] is from 20 to 50 nucleotides long.

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31. (Amended) The nucleic acid molecule [probe] of claim 17, wherein the

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nucleic acid molecule is labeled.

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33. (Amended) The primers of claim 32, wherein the nucleic acid molecule comprises the sequence presented in Figure 1 (SEQ ID No. 1) or its complement.

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34. (Amended) The primers of claim 32, wherein the nucleic acid molecule comprises any of the sequences presented in Figure 11 (SEQ ID Nos: 35, 37, 39, 42, 44, 46, 48, 50, 52-54, 56-58, 60-62, 64-66, 68-70, 72-74, 76-78, 80-82, 84-86) or the complements thereof.

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36. (Amended) The primers of claim 35, wherein the primers flank nucleotide 222, 1950, 2131-2166, 2287-2468, 2843, or 3157 as presented in Figure 1 (SEQ ID No: 1).

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37. (Amended) The primers of claim 36, wherein only one of each primer pair flanks nucleotide 222, 1950, 2131-2166, 2287-2468, 2843, or 3157 as presented in Figure 1 (SEQ ID No: 1) and the other primer of the pair has sequence corresponding to one of the sequences presented in Figure 10 (SEQ ID Nos: 18, 23, 25, 27, 29, 30, 32, 33) or complements thereof.

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44. (Amended) The method of claim 43, wherein the primers are Htel Intron T and Htel 723B or Htel335T and Htel1022B.

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53. (Amended) The animal of claim 50, wherein the telomerase gene is any of the nucleic acid sequences presented in Figure 1 (SEQ ID No. 2) or 11 (SEQ ID Nos: 35, 37, 39, 42, 44, 46, 48, 50, 52-54, 56-58, 60-62, 64-66, 68-70, 72-74, 76-78, 80-82, 84-86) or hybridizes under normal stringency conditions to the complement of the sequences [Figure 11].

#### REMARKS

Claims 1-4, 6,7,9-19, 22-29, 31-37, 39-44 and 46-64 are pending in the instant application. Claims 3,4,6,7,9,11,13,18,27,28,29,31,33,34 and 36 have been amended. Claims